

have sharply defined edges having the requisite depth. Loose abrasive slurries are, however, accompanied by a number of disadvantages. For instance, the loose abrasive slurries create a large amount of debris and waste. As a result, the thin film rigid disks must be thoroughly cleaned to remove any residues left on their surface from the binder precursor. Also, abrasive particles from the abrasive slurry may become embedded in the surface of the rigid disks which may cause damage to the sensitive MR heads used in modern disk drives. Finally, the loose abrasive slurry also results in a relatively high amount of wear on the equipment used for texturing.

Please replace the paragraph at page 6, lines 19-25 with the paragraph below.

a² In another embodiment, the parallel elongate ridges each comprise a continuous protrusion of hardened binder extending continuously between the side edges of the backing. In another embodiment, the continuous protrusion is a pyramidal shape having an apex and sides, the sides intersecting at said apex to form an angle therebetween of from about 70 to about 110 degrees. In another embodiment, the ridges each comprise a plurality of separate precisely-shaped protrusions aligned with transverse centers located on said machine direction axis.

Please replace the paragraph at page 11, line 23 to page 12, line 2 with the paragraph below.

a³ In another embodiment of the invention, the abrasive ridges each comprise a continuous line of upraised binder material. In an alternate embodiment of the invention, the abrasive ridges each comprise a plurality of separate precisely-shaped protrusions that are aligned with transverse centers located on said machine direction axis or its imaginary extension line. In a preferred embodiment, the abrasive ridges are comprised of a plurality of individual composites that are intermittently spaced along the aforesaid machine direction line, wherein each of the abrasive composites is precisely shaped and comprises a plurality of abrasive particles dispersed in a binder, which binder provides a means of attachment of the abrasive composites to the aforesaid surface.

Please add the following text at page 7, between lines 12 and 13.

a 4 Figure 5a is a cross sectional view of one embodiment of an abrasive article of the present invention.

Please add the following paragraph at page 12, between lines 10 and 11.

a 5 Figure 5a is a cross section view of another embodiment of a structured abrasive article of the present invention. Abrasive article 60a comprises backing 62a with front surface 63a and back surface 64a. Front surface 63a of backing 62a bears a plurality of precisely-shaped truncated pyramidal protrusions 61a having truncated top surfaces 66a. The truncated pyramidal protrusions 61a are formed of cured binder material 65a. The plurality of precisely-shaped truncated pyramidal protrusions 61a are arranged on the front surface 63a of backing 62a in a predetermined arrangement of offset rows. A thin diamond-like carbon coating 67a is applied over and is adhered to the precisely-shaped protrusions 61a to form a continuous coating.

IN THE CLAIMS

Please amend claims 1, 12, 20 and 25 as set forth below.

Sub B1
a 6 1 (amended). A method of mechanically treating a substrate, the method comprising the steps of:

(a) providing a substrate for mechanical treatment, the substrate selected from the group consisting of a rigid disk or a rigid disk substrate;
(b) providing an abrasive article in contact with the substrate at a pressure, the abrasive article comprising:

a backing having a first major surface and a second major surface; and

an abrasive coating consisting essentially of: